EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION
UH-1N, SERIAL NUMBER (S/N) 69-6612
512th RESCUE SQUADRON (RQS),
58th SPECIAL OPERATIONS WING
KIRTLAND AIR FORCE BASE (AFB), NEW MEXICO
08 AUGUST 2002

On 8 August 2002 at approximately 1610 (all times are local), the mishap aircraft (MA), a UH-1N, S/N 69-6612, crashed on Pad 8 of the auxiliary field (N34-57.16 W106-33.95), approximately 5 NM south of the Albuquerque International airport. The crew on the MA consisted of five people, the mission instructor pilot (MIP), two mission student pilots (MSP1, MSP2), mission flight engineer (MFE), and a student flight engineer (MSFE). The MA was on a scheduled contact checkride on the MSFE, a contact training flight on the MSP2, and an ungraded remedial training flight on the MSP1. All three students were in UH-1N qualification training. The MSP1 had been graded "unsatisfactory" in manual fuel operations on the previous day's recommendation flight for manual fuel operations due to an over speed on the manually controlled engine. The MA took-off seven minutes early at 1353 on a VFR flight plan to the auxiliary field. Two hours and 17 minutes after departure, the MA crashed on pad 8 of the auxiliary field. The aircraft was technically destroyed, but the crew was not injured. There was no damage to the landing site.

The accident was the result of pilot error brought on by MSP1 applying too much throttle to engine number 1, causing its power to exceed that of the automatically controlled #2 engine. This input results in what is called a swap, a condition where the manually controlled engine provides more power than the automatically controlled engine, and if not properly controlled, can result in a loss of power in the automatically controlled engine, effectively creating a single engine situation, and loss of power to the rotor system degrading its ability to produce lift thus causing the helicopter to rapidly descend. The MSP1's improper control of the MA #1 throttle (the manually controlled/ungoverned engine) placed the MA in a condition which resulted in a momentary loss of power to the automatically controlled engine, placing the MA in a single engine condition without the power to maintain either an in or out of ground effect hover, which resulted in the rapid loss of RPMs to the main rotor system and started an accelerating descent. Clear and convincing evidence indicates that once the MSP1 had made the throttle inputs it was impossible to arrest the decent of the helicopter due to the lack of time available to recover the #2 engine (governed engine) back to full operating power (2-5 seconds required) and the lack of altitude available to recover the rapidly decaying main rotor RPM (within the first second of the #2 engine reducing power, the main rotor had decayed to 92% or less). The aircraft was not recoverable at that point, the only question was at what rate of decent it would impact. The MIP's inputs in the 2-3 seconds he had to react where focused on leveling the MA and controlling the yaw axis to prevent MA rollover and blade to fuselage contact. These actions ensured that no serious injuries where suffered by the MA crew.

Under 10 U.S.C. 2254(d) any opinion of the accident investigators as to the cause of, or the factors contributing to, the accident set forth in the accident investigation report may not be considered as evidence in any civil or criminal proceeding arising from an aircraft accident, nor may such information be considered an admission of liability of the United States or by any person referred to in those conclusions or statements.